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WATER SUPPLY OUTLOOK FOR OREGON



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with
OREGON DEPARTMENT OF WATER RESOURCES

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
APR. 1, 1978

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SOME OF THE DATA IN THIS REPORT HAVE BEEN RECEIVED THROUGH THE SOIL CONSERVATION SERVICE'S NEW SNOTEL SYSTEM WHICH TRANSMITS INFORMATION VIA THE SPACE AGED METEOR BURST METHOD FROM DATA SITES TO MASTER STATIONS LIKE THESE.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

APRIL 8, 1978

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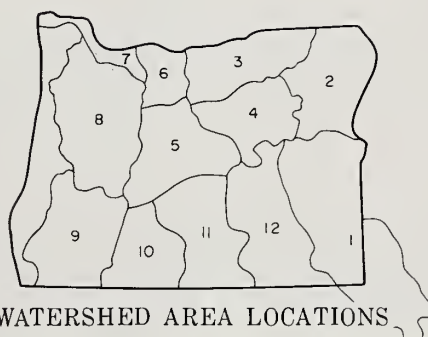
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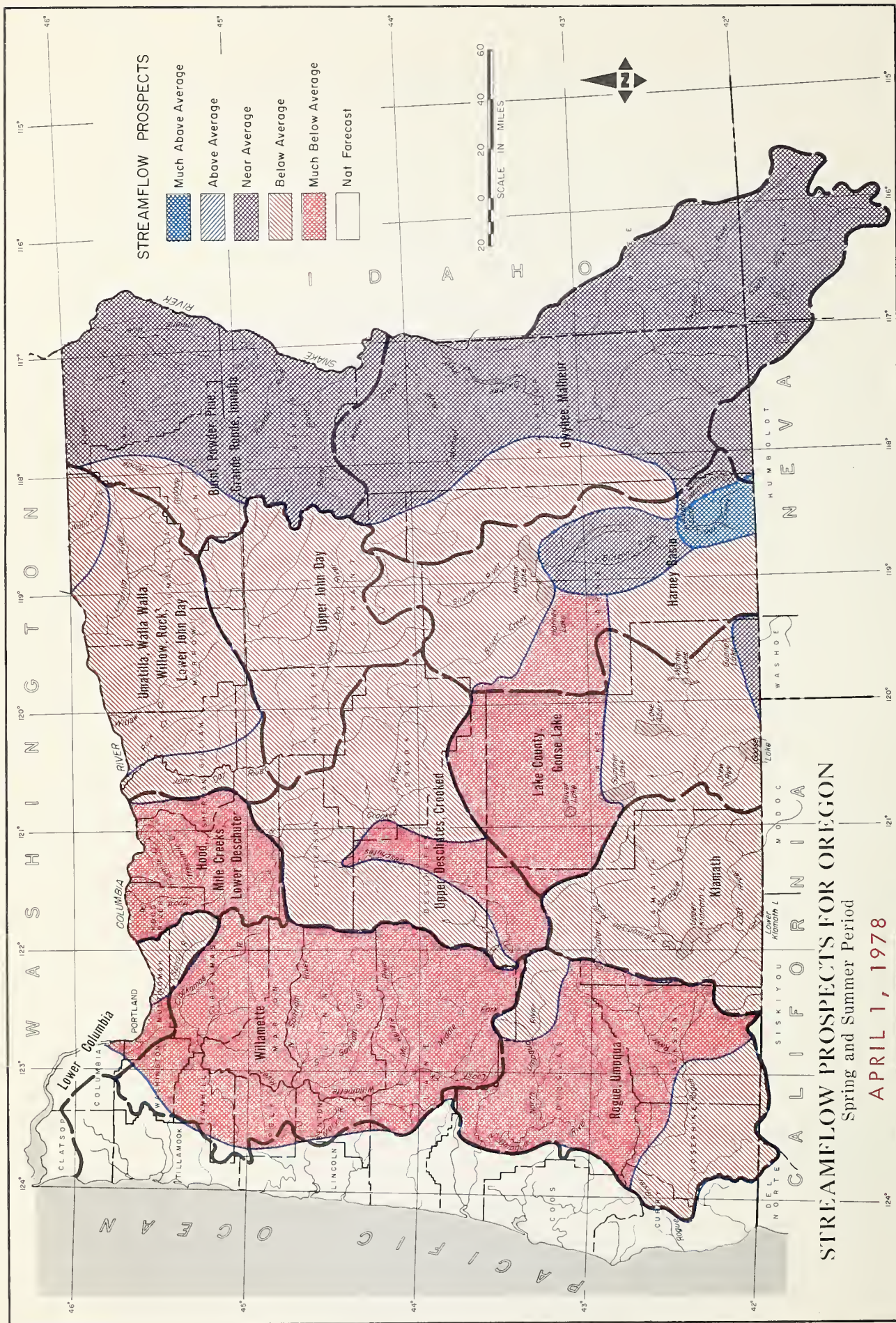
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WATERSHED AREA LOCATIONS



STREAMFLOW PROSPECTS FOR OREGON

Spring and Summer Period

APRIL 1, 1978

WATER SUPPLY OUTLOOK for OREGON

APRIL 1, 1978

Most Oregon water users will have adequate supplies this summer. Irrigators, dependent on direct diversion west of the Cascades and in the counties along the Columbia and the Upper Grande Ronde, may experience shortages as early as June.

SNOW COVER

Oregon's snow cover conditions deteriorated drastically during March. Normally, the snowpack increases during the winter until it reaches a maximum on April 1. The maximum this year was March 1, as the snowpack decreased this past month due to warm temperatures and lack of precipitation. Currently, 107 of the 200 snow courses in the state have water contents equal to, or less than last year's snowpack. The snow cover in the Cascades varies from a minimum of no snow on lower elevation watersheds, to 25% on most of the Willamette and up to 55% on the Upper Rogue River. The snowpack around Mt. Hood is half of normal and the Upper Deschutes is 45 to 55% of average. Klamath and Lake county snowpack is generally 45 to 65% of average. Southeast Oregon has the best snow cover, where it is normal on the Owyhee and above normal in the Steens and the Trout Creek Range. The Blue Mountain snowpack is 35 to 65% of normal, while the Wallowas, at higher elevations, are near normal.

PRECIPITATION

Sunny days dominated western Oregon during March. Storms were few and precipitation varied from near 30% in the Willamette Valley to 58% in the Rogue and Umpqua Valleys. Northeastern Oregon precipitation was 75 to 85% of normal, while southeastern Oregon received more than average amounts. Winter precipitation, November through March, has been normal to above normal throughout the state.

SOIL MOISTURE

Mountain soils are wetter than normal due to the melting snowpack and winter rains. This means spring precipitation should contribute more than normally to the runoff.

RESERVOIR STORAGE

Reservoir storage is now near normal for April 1, due to the early snowmelt runoff. Twentyfive principal irrigation reservoirs were storing 2,259,000 acre feet of water on April 1. The normal for this date is 2,230,000 acre feet.

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STREAMFLOW

Streamflow during March was above normal in Eastern Oregon because of the early snowmelt, but was below average in Western Oregon where some of the snowmelt went into charging soils and ground water. Forecasts of spring and summer volumes of streamflow for representative Oregon streams are as follows:

<u>Stream</u>	<u>Period</u>	<u>Forecast % of 1958-72 Avg.</u>
Owyhee net Inflow	Apr.-Sept.	101
Malheur nr. Drewsey	Apr.-Sept.	85
Deschutes nr. Benham Falls	Apr.-Sept.	79
Grande Ronde nr. La Grande	Apr.-Sept.	58
Willamette, Mid. Fk. nr. Oakridge	Apr.-Sept.	68
Upper Klamath Lake Inflow	Apr.-Sept.	85
Rogue nr. Raygold	Apr.-Sept.	75
Silvies nr. Burns	Apr.-Sept.	78



This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

WATER SUPPLY OUTLOOK

OWYHEE, MALHEUR WATERSHEDS

OREGON

GENERAL OUTLOOK

SNOW MELT ACCELERATED IN MARCH AND STREAMFLOW FORECASTS HAVE BEEN REVISED DOWNWARD. THE OWYHEE-MALHEUR AREA CAN GENERALLY EXPECT STREAMFLOW TO RANGE FROM 85% TO 101% OF NORMAL. BULLY CREEK WAS FORECAST TO DELIVER 187% OF NORMAL FLOW BUT MUCH OF THIS HAS ALREADY COME DOWN IN MARCH. SNOW PACK VARIES FROM 68% TO 93% OF NORMAL. MARCH PRECIPITATION WAS 125% OF AVERAGE. RESERVOIR STORAGE IS GENERALLY ABOVE AVERAGE. SOIL MOISTURE CONDITIONS ARE GOOD. ADEQUATE WATER SUPPLY CAN BE EXPECTED.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Bully Creek at Warm Springs	26	187	Mar - May		13.9
Malheur near Drewsey	60	85	Apr - July		71
	61	85	Apr - Sept		72
Malheur, North Fork at Beulah	54	92	Apr - July		59
	59	92	Apr - Sept		64
Owyhee Reservoir net Inflow	311	101	Apr - July	76	309
	336	101	Apr - Sept	97	332

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	1000 250	May 25 June 20	May 24 June 20

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Beulah Reservoir	60.0	49.8	31.4	42.9
Bully Creek	30.0	27.0	15.0	22.3
Owyhee	715.0	549.9	523.1	509.2
Warm Springs	191.0	102.4	86.8	119.1

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Malheur River	2	156	110
Owyhee River	0	---	---

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Malheur River	5	205	68
Bully Creek	2	0	0
Owyhee River	5	231	93

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

MELTING SNOW HAS AFFECTED THE STREAMFLOW FORECASTS IN THIS AREA, BUT MOST STREAMS WILL HAVE NEAR NORMAL DISCHARGE. TWO EXCEPTIONS ARE THE GRANDE RONDE AT LA GRANDE, AT 55%, AND WOLF CREEK AT 60% OF AVERAGE. SNOWPACK WATER IS VARIABLE, RANGING FROM 22% ON THE GRANDE RONDE WATERSHED, TO 92% IN THE GREATER WALLOWA AREA. PRECIPITATION IN MARCH WAS 84% OF AVERAGE. ALL MAJOR RESERVOIRS HAVE NEAR OR ABOVE AVERAGE STORAGE. SOIL MOISTURE IS GENERALLY GOOD. WATER SUPPLY SHOULD BE ADEQUATE, EXCEPT FOR LOCAL DIRECT DIVERSION IN LATE SEASON.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Bear near Wallowa	65	98	Apr - Sept	84 88	66
Burnt near Hereford	33	102	Apr - July		32
	34	103	Apr - Sept		33
Catherine near Union	64	98	Apr - Sept		65
Eagle Creek abv. Skull Creek	164	94	Apr - July		175
	179	94	Apr - Sept		190
Grande Ronde at La Grande	85	55	Apr - July		154
	92	58	Apr - Sept		158
Hurricane near Joseph	46	97	Apr - Sept		47
Imnaha at Imnaha	327	106	Apr - Sept		307
Lostine near Lostine	117	94	Apr - Sept	125	
Powder near Sumpter	50	91	Apr - July	55	
Wallowa, East Fork near Joseph	8.8	96	Apr - July	9.2	
	10.8	95	Apr - Sept	11.4	
Wallowa, at Joseph	72	95	May - July	76	
Wolf Creek net Inflow	6.6	60	Apr - June	11.1	

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Phillips Lake	73.5	33.7	46.5	--
Thief Valley	17.4	17.4	17.4	17.4
Unity	25.2	25.0	15.6	19.5
Wallowa Lake	37.5	21.4	26.2	23.4
Wolf Creek	10.4	6.6	7.5	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Burnt River	4	147	76
Grande Ronde River above La Grande	4	22	22
Powder River	5	228	87
Wallowa, Imnaha, Catherine Creek	6	193	92

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Burnt, Powder	1	278	153
Grande Ronde, Catherine Creek, Imnaha River	2	113	104

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Birch Creek at Rieth	9.3	59	Apr - July		15.9
McKay near Pilot Rock	17.2	71	Apr - Sept		24
Umatilla near Gibbon	39	57	Apr - July		69
	45	60	Apr - Sept		75
Umatilla at Pendleton	74	53	Apr - July		139
	79	55	Apr - Sept		144
Walla Walla, South Fork near Milton	43	80	Apr - July		53
	56	85	Apr - Sept		66
Butter Creek near Pine City	5.3	70	Apr - July		7.6

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	Apr 29	May 22

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cold Springs	50.0	49.8	23.0	49.4
McKay	73.8	57.9	21.6	49.2

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Umatilla, Walla Walla, McKay Creek	2	143	100

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
McKay Creek	3	33	37
Umatilla River	3	54	42
Walla Walla River	2	70	38

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER JOHN DAY WATERSHEDS

OREGON

GENERAL OUTLOOK

MUCH OF THE UPPER JOHN DAY SNOWPACK HAS MELTED AND RUN OFF. NO SERIOUS SHORTAGES ARE EXPECTED BUT STREAMFLOW FORECASTS ARE GENERALLY AROUND 80% OF NORMAL. THE SNOWPACK REMAINING IS 65% OF NORMAL FOR APRIL 1. PRECIPITATION IN MARCH WAS 76% OF NORMAL. SOIL MOISTURE IS NEAR AVERAGE.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Camas Creek near Ukiah	26	80	Apr - July		33
	27	81	Apr - Sept		33
John Day, Middle Fork at Ritter	84	80	Apr - July		105
	86	80	Apr - Sept		108
John Day, North Fork at Monument	420	80	Apr - July		525
	432	80	Apr - Sept		540
Strawberry near Prairie City	6.0	87	Apr - July		6.9
	6.3	83	Apr - Sept		7.6

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
John Day above Dayville	3	128	97
John Day, North Fork	1	130	110

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
John Day, North Fork	7	101	64
John Day abv. Dayville	5	151	65

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS

OREGON

GENERAL OUTLOOK

THE SNOWPACK IS MELTING AND LATE SEASON WATER SUPPLY WILL BE VARIABLE. STREAMFLOW IS FORECAST TO RANGE FROM A LOW OF 30% ON CRESCENT CREEK TO A HIGH OF 85% ON THE CROOKED RIVER. MOST MAJOR STREAMS WILL HAVE 70% - 80% OF NORMAL FLOW. SNOWPACK WATER RANGED FROM 47% TO 74% OF NORMAL. RESERVOIR STORAGE IS REPORTED AS ABOVE AVERAGE. MARCH PRECIPITATION WAS 78% OF AVERAGE. SOIL MOISTURE IS NORMAL. WATER USERS WITH ACCESS TO RESERVOIR STORAGE SHOULD HAVE ADEQUATE SUPPLIES BUT DIRECT DIVERSION MAY BE LIMITED IN LATE SEASON.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Beaver Creek near Paulina	11.0	70	Apr - July		15.8
	11.2	70	Apr - Sept		16.0
Crane Prairie Reservoir total Inflow	64	83	Apr - July		78
	93	78	Apr - Sept		119
Crescent at Crescent Lake	5.9	32	Apr - July		18.4
	6.7	30	Apr - Sept		22
Crooked near Post	77	85	Apr - July		91
	78	85	Apr - Sept		91
Deschutes at Benham Falls	273	76	Apr - July		360
	431	79	Apr - Sept		550
Deschutes below Snow Creek	49	79	Apr - Sept		62
Deschutes, Little near La Pine	50	66	Apr - July		73
	60	60	Apr - Sept		82
Ochoco Reservoir net Inflow	13.5	72	Apr - Sept		18.8
Odell near Crescent	15.0	55	Apr - Sept		28
Squaw near Sisters	40	80	Apr - Sept		50
Tumalo near Bend	34	77	Apr - Sept		44
Deschutes at Bend	140	--	Aug - Sept		--

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second. Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	300	1/ May 15	July 15
Crooked R. near Post	100	2/	June 1
Deschutes at Bend	1500	2/	July 1
Little Deschutes near La Pine	400	3/ May 20	June 7
	200		July 8
1/ Inflow will not be as great as 300 cfs.			
2/ Flow will not be as great as 1500 cfs.			
3/ Flow will not be as great as 400 cfs.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Crane Prairie	55.3	52.0	49.1	44.8
Crescent Lake	86.9	53.6	71.3	50.4
Ochoco	47.5	41.2	23.8	30.9
Prineville	153.0	149.1	99.6	123.4
Wickiup	200.0	190.1	203.0	187.8

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Crooked R., Upper Deschutes River	3	127	100

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Crooked, Ochoco	4	178	74
Deschutes abv. Wickiup	3	157	58
Little Deschutes	4	113	47
Tumalo & Squaw Crs.	3	168	53

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

HOOD, MILE CREEKS, LOWER DESCHUTES
WATERSHEDS
OREGON

GENERAL OUTLOOK

STREAMFLOW WILL BE BELOW NORMAL, RANGING FROM 50% TO 73% OF AVERAGE. THE SNOWPACK IS ONLY 50% OF NORMAL. CLEAR LAKE RESERVOIR REPORTS ABOVE NORMAL STORAGE. MARCH PRECIPITATION WAS 28% OF NORMAL. INDICATIONS ARE FOR BELOW AVERAGE WATER SUPPLY ESPECIALLY IN LATE SEASON.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Hood, West Fork near Dee	91	69	Apr - July		132
	112	73	Apr - Sept		154
White below Tygh Valley	59	50	Apr - July		118
	66	50	Apr - Sept		133

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	*33	July 15-31	**39
* Average cfs forecast to flow for this two-week period.			
** Average cfs for period of record.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake (Wasco)	11.9	4.2	6.1	3.8

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Hood River	5	95	47
Mile Creeks	1	52	26
White River	3	91	50

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

THE SNOWPACK IN THE UPPER COLUMBIA RIVER BASIN IS NEAR NORMAL IN GENERAL. THE COLUMBIA RIVER AT THE DALLES IS FORECAST TO BE 90% OF NORMAL FOR THE APRIL-JUNE AND APRIL-SEPTEMBER PERIODS. THE SANDY RIVER IS ONLY FORECAST TO PRODUCE 75% - 80% OF ITS NORMAL SUMMER FLOW.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Sandy River	2	99	55

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year Average ^c
Columbia at The Dalles	65,844	90	Apr - June	73,160
	93,700	90	Apr - Sept	104,426
Sandy River near Marmot	254	74	Apr - July	342
	319	80	Apr - Sept	398

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^d (1,000 A F)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT.	APR - JUNE	MAY - JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	OER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

WILLAMETTE WATERSHEDS

OREGON

Area 8

GENERAL OUTLOOK

SOME WATER SHORTAGES MAY OCCUR IN THE WILLAMETTE AREA. DISCHARGE OF THE MAJOR STREAMS IS FORECAST TO RANGE FROM 58% TO 70% OF NORMAL. SNOW PACK WATER VARIES FROM 27% TO 42% OF AVERAGE EXCEPT ON THE CLACKAMAS RIVER WATERSHED. ALL SNOW COURSES IN THIS DRAINAGE ARE BARE. MARCH PRECIPITATION WAS 33% OF NORMAL. CASCADES RESERVOIRS HAVE BELOW AVERAGE STORAGE AND THE CORPS OF ENGINEERS DOES NOT EXPECT SOME OF THEIR RESERVOIRS TO FILL UNLESS SPRING AND SUMMER PRECIPITATION IS ABOVE AVERAGE.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS			THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET		
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c	
Clackamas at Estacada	425	63	Apr - July		674	
	526	67	Apr - Sept		789	
Clackamas above Three Lynx	294	58	Apr - July		506	
	380	63	Apr - Sept		604	
McKenzie at McKenzie Bridge	294	65	Apr - July		453	
	389	65	Apr - Sept		598	
McKenzie near Vida	680	66	Apr - July		1,035	
	833	66	Apr - Sept		1,262	
McKenzie, So. Fork near Rainbow	129	62	Apr - July		210	
	158	66	Apr - Sept		239	
Oak Grove Fork above Power Intake	80	65	Apr - July		123	
	105	65	Apr - Sept		162	
Row near Dorena	69	70	Apr - July		98	
	71	70	Apr - Sept		102	
Santiam, North at Mehama	488	64	Apr - July		765	
	599	69	Apr - Sept		872	
Santiam, South at Waterloo	391	69	Apr - July		564	
	436	70	Apr - Sept		623	
Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	437	64	Apr - July		678	
	531	68	Apr - Sept		779	
Willamette, No. Fk. of Mid. Fk. near Oakridge	121	64	Apr - July		189	
	139	66	Apr - Sept		209	
Willamette at Salem	3050	69	Apr - July		4,397	
	3460	70	Apr - Sept		4,943	

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Clackamas River	2	0	0
McKenzie River	3	40	27
Row River	2	57	36
Santiam River	4	53	25
Willamette, Mid. Fk.	5	96	42

RESERVOIR STORAGE (Thousand Ac. Ft.)

END OF MONTH

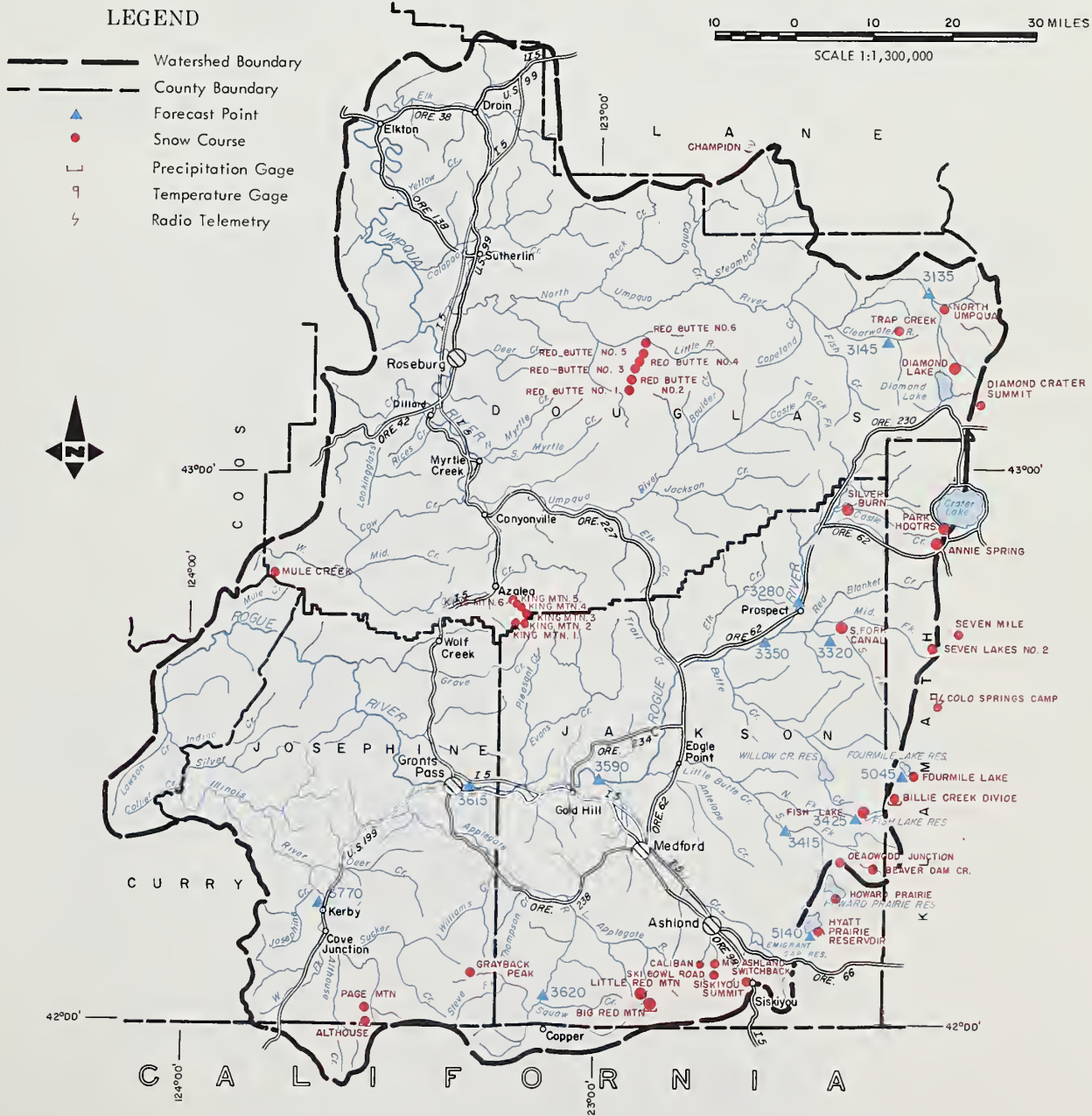
RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Blue River	85.6*	35.6	40.0	---
Cottage Grove	30.0*	12.1	16.4	16.6
Cougar	155.2*	64.7	37.0	74.3
Detroit	299.9*	110.9	68.9	177.6
Dorena	70.5*	28.2	47.4	38.4
Fall Creek	115.0*	47.3	46.9	73.8
Fern Ridge	94.2*	46.4	36.7	72.9
Foster	30.0*	3.9	22.5	9.0
Green Peter	270.0*	96.6	109.7	164.7
Hills Creek	200.0*	103.1	15.9	121.1
Lookout Point	337.2*	108.6	51.7	173.5
Timothy Lake	61.7	50.6	45.1	52.8
Henry Hagg Lake	53.0	51.6	32.8	---
* Multiple purpose reservoir--space reserved primarily for flood runoff.				

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK ROGUE, UMPQUA, WATERSHEDS OREGON

GENERAL OUTLOOK

WATER SUPPLY FORECASTS FOR MOST AREA STREAMS ARE REDUCED FROM A MONTH AGO. VOLUME FORECASTS RANGE FROM 44% TO 96% OF AVERAGE, BUT MOST ARE NEAR 70%. SNOWPACK WATER RANGES FROM 95% OF AVERAGE ON BEAR CREEK TO 18% OF AVERAGE ON BUTTE CREEK. MARCH PRECIPITATION WAS 58% OF NORMAL. MOST MAJOR RESERVOIRS ARE REPORTING AVERAGE, OR ABOVE, STORAGE. WATER USERS WITH ACCESS TO RESERVOIRS SHOULD HAVE ADEQUATE SUPPLIES, BUT DIRECT DIVERSION SUPPLIES MAY BE HIGHLY VARIABLE AND OFTEN INADEQUATE.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Applegate near Copper	104	78	Apr-Sept		133
Clearwater above Trap Creek	66	96	Apr-Sept		69
Fourmile Lake net Inflow	3.1	77	Apr-Sept		4.3
Hyatt Reservoir net Inflow	2.0	44	Apr-July		4.6
Illinois River near Kerby	161	84	Apr-July		191
	166	84	Apr-Sept		197
Little Butte, N. Fk. at Fish Lake nr. Lake Cr.	10.5	77	Apr-Sept		13.7
Little Butte, S. Fk. near Lake Creek	19.3	69	Apr-July		31
Rogue above Prospect	169	66	Apr-July		256
	210	68	Apr-Sept		311
Rogue, South Fork near Prospect	41	67	Apr-July		61
	48	67	Apr-Sept		72
Rogue at Raygold near Central Point	536	73	Apr-July	401	735
	668	75	Apr-Sept	529	890
Rogue at Grants Pass	580	65	Apr-Sept		890
Umpqua, No. blw. Lemolo Res. nr. Toketee Falls*	140	84	Apr-Sept		166

*National Weather Service forecast.

FORECAST DATE of LOW FLOW VALUES

Little Butte Creek, South Fork	100	May 6	May 27
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RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Emigrant Lake	39.0	39.0	29.4	35.8*
Fish Lake	8.0	5.1	6.5	5.7
Fourmile Lake	16.1	7.8	10.1	9.7
Howard Prairie	60.0	43.7	33.9	38.7
Hyatt Prairie	16.1	12.7	10.7	12.3

*Average for years of record (in base period) after reconstruction.

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Applegate	3	202	81
Bear Creek	2	270	95
Butte Creek	4	26	18
Illinois River	3	78	46
North Umpqua	3	64	26
Rogue River	4	123	54

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

GENERAL OUTLOOK

MUCH OF THE SNOWPACK HAS MELTED AND RUN OFF OF THIS AREA. STREAMFLOW FORECASTS ARE FOR 69% TO 85% OF NORMAL DISCHARGE. SNOWPACK WATER IS ABOUT 46% OF NORMAL OVER THE AREA. RESERVOIR STORAGE IS BELOW AVERAGE IN CLEAR LAKE, GERBER, AND UPPER KLAMATH LAKE. MARCH PRECIPITATION WAS 108% OF NORMAL. SOIL MOISTURE CONDITIONS ARE GOOD. DIRECT DIVERSION WATER USERS MAY EXPERIENCE SHORTAGES IN LATE SEASON.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average c
Clear Lake Reservoir Inflow	28	69	Apr-July		40
	29	69	Apr-Sept		42
Gerber Reservoir Inflow	15.1	81	Apr-July		18.6
	16.2	82	Apr-Sept		18.9
Sprague near Chiloquin	170	80	Apr-July		212
	194	80	Apr-Sept		242
Upper Klamath Lake net Inflow	356	80	Apr-July	206	445
	456	85	Apr-Sept	290	536
Williamson below Sprague River	352	85	Apr-Sept	233	414

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average c
Upper Klamath	1	159	110

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average c
Clear Lake	440.2	197.4	210.0	248.9
Gerber	94.0	56.8	35.8	58.8
Upper Klamath Lake	584.0	455.2	472.0	475.4

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
Lost River	4	170	68
Sprague River	3	260	47
Upper Klamath	6	156	46
Williamson River	3	197	43

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average c
Chewaucan near Paisley	62	82	Apr-July	9.8	75
Deep above Adel	65	82	Apr-Sept	12.2	79
Drews Reservoir net Inflow	50	75	Apr-July		66
Honey Creek near Plush	51	75	Apr-Sept		68
Silver Creek near Silver Lake	23	85	Apr-July		27
Twentymile near Adel	13.6	80	Apr-July		17.0
	13.4	78	Apr-Sept		17.2
	9.6	70	Apr-July		13.7
	17.7	95	Apr-July		18.6
	18.1	95	Apr-Sept		19.1

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average c
Chewaucan, Silver Creek, Drew Creek	1	159	110
Honey, Deep, 20-Mi. Cr.	1	131	102

RESERVOIR STORAGE (Thousand Ac. Ft.)

RESERVOIR	Usable Capacity	END OF MONTH Usable Storage		
		This Year	Last Year	Average c
Cottonwood	8.7	7.1	1.8	5.3*
Drews	63.0	43.0	22.1	46.5
Thompson Valley	19.5	13.8	9.2	----
* Average for years of record (in base period) after reconstruction.				

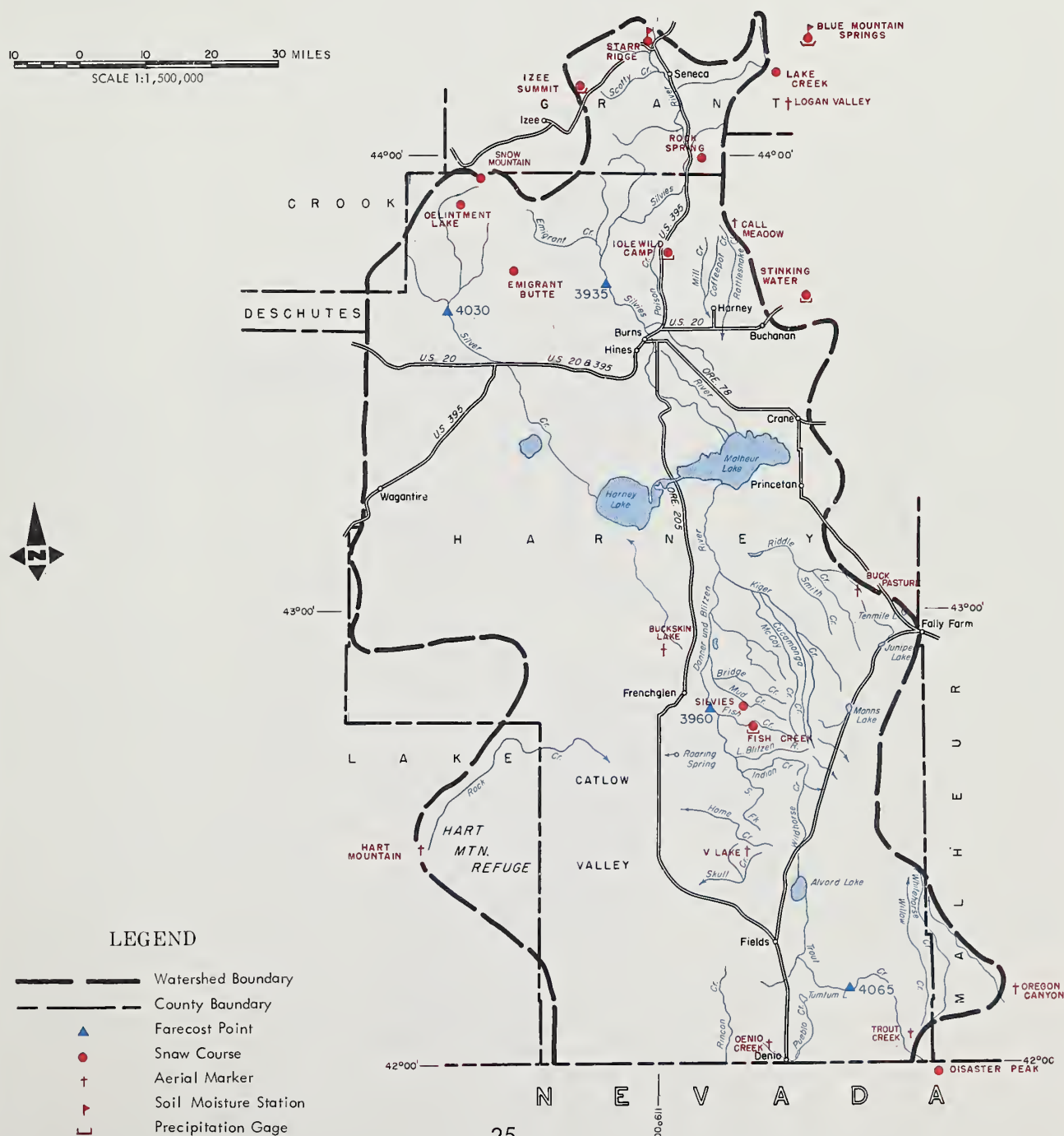
SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
Chewaucan River	3	260	47
Deep Creek	2	159	62
Drew Creek	3	91	17
Honey Creek	3	156	41
Silver Creek	3	750	16
Twentymile Creek	2	283	107

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

THIS AREA SHOULD HAVE ADEQUATE WATER SUPPLIES. WATER SUPPLY FORECASTS RANGE FROM 78% TO 160% OF NORMAL. THE SNOWPACK VARIES FROM 51% TO 184% OF AVERAGE AND IS ABOUT 93% FOR THE AREA IN GENERAL. MARCH PRECIPITATION WAS 132% OF AVERAGE. SOIL MOISTURE CONDITIONS ARE GOOD.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Donner und Blitzen near Frenchglen	51	106	Apr-July		48
	56	105	Apr-Sept		53
Silver near Riley	13.3	85	Apr-July		15.6
Silvies River near Burns	57	78	Apr-July	8.2	73
	58	78	Apr-Sept	12.3	74
Trout Creek near Denio	12.0	160	Apr-July		7.5
	13.3	168	Apr-Sept		7.9

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Silvies River, Silver Cr.	3	128	109
Trout Cr., Donner und Blitzen River	1	---	107

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Donner und Blitzen R.	4	208	106
Silver Creek	3	199	77
Silvies River	4	112	51
Trout Creek	3	852	184

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

APRIL 1, 1978

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. ^C
OWYHEE, MALHEUR WATERSHEDS					
Antelope Ridge (Ida.)	3/29	8	4.3	1.2	5.5
Battle Creek (Ida.)***	3/27	3	1.5	0.0	1.8
Bear Creek (Nev.)	3/30	54	23.4	11.7	21.0
Big Bend (Nev.)	3/27	22	8.7	3.0	8.1
Blue Mountain Springs	3/30	24	10.5	6.0	15.6
Blue Mtn. Springs Pillow	3/30	20	9.0	0.0	----
Buck Pasture***	3/27	0	0.0	0.0	1.9
Buckskin, Lower (Nev.)	3/27	19	8.4	2.5	7.4
Buckskin, Upper (Nev.)	3/27	29	14.5	3.1	10.4
Bull Basin (Ida.)***	3/27	0	0.0	0.0	0.5
Bully Creek***	3/27	0	0.0	0.0	1.0
Call Meadow***	3/27	3	1.4	0.1	3.1
Columbia Basin (Nev.)***	3/30	9	3.7	2.0	5.9
Cottonwood-Indian***	3/27	0	0.0	0.0	0.1
Disaster Peak (Nev.)	3/27	27	12.6	2.0	10.8
Eldorado Pass	3/30	0	0.0	0.0	1.0
Fawn Creek (Nev.)	3/30	23	10.2	5.8	2.5
Fish Creek	3/31	66	28.5	12.1	25.4
Fish Creek***	3/27	58	24.9	----	23.4
Fish Creek Pillow*		No	Rpt.	11.1	----
Flag Prairie***	3/27	0	0.0	0.0	2.8
Fox Creek (Nev.)	3/30	22	8.7	6.6	9.4
Fry Canyon (Nev.)	3/27	15	5.8	2.2	5.3
Gold Creek (Nev.)	3/27	10	4.4	0.8	4.9
Granite Peak (Nev.)	3/27	56	23.6	3.9	15.4
Hyde Pasture (Ida.)***	3/27	3	1.5	0.1	3.0
Jack Creek, Lower (Nev.)	3/27	0	0.0	2.9	2.5
Jack Creek, Upper (Nev.)	3/27	22	7.6	5.5	10.0
Jack Peak (Nev.)	3/27	66	25.0	13.7	24.6
Lake Creek R.S.	3/30	12	5.5	3.0	8.9
Lake Creek R.S. Pillow	3/30	13	6.0	----	----
Laurel Draw (Nev.)***	3/27	17	7.2	5.6	6.5
Logan Valley***	3/27	5	2.3	----	5.6
Lookout Butte***	3/27	0	0.0	0.0	0.0
Louse Canyon***	3/27	12	6.0	0.1	1.9
Martin Creek (Nev.)	3/27	27	11.9	4.3	9.1
Merritt Mountain (Nev.)***	3/30	0	0.0	2.0	4.2
Midas (Nev.)	3/27	10	4.3	0.6	2.7
Mud Flat (Ida.)	3/29	7	3.5	0.5	4.4
Oregon Canyon***	3/27	10	4.7	0.1	4.1
Quinn Ridge (Nev.)	3/27	0	0.0	0.0	0.8
Red Canyon (Ida.)***	3/27	14	6.4	2.5	4.6
Rock Spring	3/30	10	4.7	1.1	4.0
Rodeo Flat (Nev.)	3/27	15	5.7	2.4	5.1
76 Creek (Nev.)***	3/30	27	11.2	4.8	11.6
Silver City (Ida.)	4/4	35	14.3	7.0	15.1
Silver City (Ida.)***	3/27	38	15.6	4.5	----
Silvies	3/31	27	12.7	8.4	13.1
Silvies***	3/27	24	11.3	----	9.4
Silvies Pillow*		No	Rpt.	10.1	----
South Mountain #2 (Ida.)	3/31	24	11.0	6.3	12.4
Stag Mountain (Nev.)***	3/30	11	4.4	1.0	3.7
Stinking Water	3/31	0	0.0	0.0	0.8
Succor Creek (Ida.)***	3/27	11	5.5	3.4	4.6
Taylor Canyon (Nev.)	3/27	0	0.0	0.4	2.7
Toe Jam (Nev.)***	3/30	24	8.4	2.1	6.8
Tremewan Ranch (Nev.)	3/29	0	0.0	0.1	0.2
Triangle (Ida.)***	3/27	0	0.0	0.0	----
Trout Creek***	3/27	36	16.6	2.4	7.3
"V" Lake	3/27	12	5.6	2.9	5.0
Vaught Ranch (Ida.)***	3/27	3	1.5	0.0	1.3
War Eagle (Ida.)***	3/27	72	28.8	4.8	22.2

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave ^c
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS					
Aneroid Lake #1	3/30	79	31.1	14.2	37.7
Aneroid Lake #2	3/30	66	28.1	14.0	33.6
Anthony Lake	3/27	58	22.7	13.2	27.4
Bald Mountain (Ore.)***	3/27	63	25.8	13.7	24.6
Beaver Reservoir	3/27	18	6.0	7.7	12.8
Big Sheep***	3/27	60	25.2	10.3	24.7
Blue Mtn. Summit	3/27	16	6.1	4.0	7.5
Bourne	3/31	27	9.8	5.4	14.6
Bourne Pillow*	3/31	--	14.3	----	----
County Line	3/29	0	0.0	5.3	3.9
County Line Pillow*		No	Rpt.	----	----
Dooley Mountain	3/28	15	5.6	2.5	8.0
Eilertson Meadows	3/27	22	9.0	3.8	11.3
Eilertson Meadows Pillow	3/27	19	8.0	----	----
Eldorado Pass	3/30	0	0.0	0.0	1.0
Gold Center	3/27	20	8.8	6.9	12.5
Gold Center Pillow	3/27	13	5.3	----	----
Goodrich Lake	3/27	75	31.8	8.8	39.5
Little Alps	3/28	32	10.8	6.3	14.8
Little Antone	3/27	2	0.9	1.1	5.5
Little Antone Alt.	3/27	12	4.7	3.0	----
Lucky Strike	3/28	28	8.9	11.6	13.0
Lucky Strike Pillow	3/28	7	2.3	5.8	----
Meacham	3/28	0	0.0	9.1	8.2
Mirror Lake***	3/27	176	77.4	28.6	72.5
Moss Spring	3/27	55	22.6	15.4	24.4
Schneider Meadow	3/27	70	31.2	7.8	31.1
Schneider Meadow Pillow*	3/27	--	25.7	----	----
Schoolmarm	3/29	0	0.0	4.7	2.8
Standley***	3/27	83	34.0	15.0	33.4
Taylor Green	3/27	36	15.2	10.0	16.9
Taylor Green Pillow*		No	Rpt.	----	----
Tipton	3/27	17	6.5	4.7	9.5
Tipton Snow Pillow	3/27	36	13.0	5.5	----
Tollgate	3/28	37	15.1	13.1	25.5
TV Ridge***	3/27	48	19.7	11.5	23.8
West Eagle Meadows	3/27	70	28.7	14.6	----
Wolf Creek	3/28	43	16.0	----	----
Wolf Creek Pillow*	3/28	--	21.3	----	----
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS					
Arbuckle Mountain	3/28	4	1.3	8.9	10.2
Arbuckle Mountain Pillow	3/28	45	16.3	8.7	----
Blue Mountain Camp	3/28	0	0.0	8.5	14.0
Bowman Springs	3/28	10	3.7	7.7	----
Bowman Springs Pillow*	3/28	--	4.6	11.6	----
Butte Creek Summit	4/1	0	0.0	0.0	----
Emigrant Springs	3/28	0	0.0	6.0	2.3
Emigrant Springs Pillow*	3/28	--	0.0	----	----
High Ridge	3/29	52	22.6	18.8	----
High Ridge Pillow*		No	Rpt.	16.4	----
Lucky Strike	3/28	28	8.9	11.6	13.0
Lucky Strike Pillow	3/28	7	2.3	5.8	----
Meacham	3/28	0	0.0	9.1	8.2
Tollgate	3/28	37	15.1	13.1	25.5

BASIC DATA SUPPLEMENT 1

APRIL 1, 1978

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. C
UPPER JOHN DAY WATERSHEDS					
Anthony Lake	3/27	58	22.7	13.2	27.4
Arbuckle Mountain	3/28	4	1.3	8.9	10.2
Arbuckle Mt. Pillow	3/28	45	16.3	8.7	----
Blue Mountain Springs	3/30	24	10.5	6.0	15.6
Blue Mt. Springs Pillow	3/30	20	9.0	5.1	----
Blue Mt. Summit	3/27	16	6.1	4.0	7.5
Butte Creek Summit	4/1	0	0.0	0.0	----
Derr	3/28	15	5.6	4.6	9.0
Derr Pillow	3/28	30	11.8	----	----
Gold Center	3/27	20	8.8	6.9	12.5
Gold Center Pillow	3/27	13	5.3	----	----
Indian Creek Butte***	3/27	50	19.0	----	23.1
Izee Summit	3/30	5	2.4	4.3	6.7
Lucky Strike	3/28	28	8.9	11.6	13.0
Lucky Strike Pillow	3/28	7	2.3	5.8	----
Marks Creek	3/31	0	0.0	0.1	1.7
Ochoco Meadows	3/31	13	5.8	3.3	8.6
Ochoco Mdw. Pillow	3/31	19	9.2	----	----
Olive Lake***	3/27	47	17.9	13.2	21.1
Schoolmarm	3/29	0	0.0	4.7	2.8
Snow Mountain	3/30	26	12.2	5.2	12.6
Snow Mt. Pillow	3/30	20	8.2	----	----
Snow Mt. Pillow**		No	Rpt.	2.6	----
Starr Ridge	3/30	0	0.0	2.2	3.9
Tipton	3/27	17	6.5	4.7	9.5
Tipton Snow Pillow*	3/27	36	13.0	5.5	----
UPPER DESCHUTES, CROOKED WATERSHEDS					
Bald Peter	3/28	67	27.0	9.2	----
Caldwell Ranch	3/29	0	0.0	0.8	7.3
Cascade Summit	3/30	28	11.3	13.0	28.8
Chemult Alternate	3/28	8	3.1	0.5	----
Derr	3/28	15	5.6	4.6	9.0
Derr Pillow*	3/28	30	11.8	----	----
Hogg Pass	3/30	43	18.4	18.8	41.1
Hogg Pass Pillow*	3/30	--	22.4	----	----
Hungry Flat	3/31	0	0.0	0.0	2.2
Irish-Taylor		No	Rpt.	----	----
Irish-Taylor Pillow*	3/29	--	19.6	16.8 ^a	38.0
Irish-Taylor Pillow**		No	Rpt.	----	----
Lionshead***		No	Rpt.	6.2	----
Marks Creek	3/31	0	0.0	0.1	1.7
New Crescent Lake	3/28	4	1.6	3.7	13.0
New Dutchman Flat #2	3/31	81	33.4	18.0	51.0
Ochoco Meadows	3/31	13	5.8	3.3	8.6
Ochoco Meadows Pillow	3/31	19	9.2	----	----
Racing Creek	3/28	21	7.4	3.8	----
Snow Mountain	3/30	26	12.2	5.2	12.6
Snow Mt. Pillow*		No	Rpt.	----	----
Snow Mt. Pillow**		No	Rpt.	2.6	----
Summit Lake Pillow*	3/28	--	23.8	----	----
Summit Lake Pillow**		No	Rpt.	11.0	----
Tamarack	3/30	0	0.0	1.3	3.1
Tangent	3/31	22	10.0	5.1	21.6
Three Creek Butte	3/30	1	0.5	2.7	8.2
Three Creek Meadow	3/30	11	4.6	5.4	18.3
Three Creek Mdw. Pillow	3/30	29	11.9	----	----
Waldo Lake	3/29	39	14.3	12.5	31.0
Whitewater Meadow		No	Rpt.	1.7	----

SNOW

SNOW		THIS YEAR			PAST REC.	
DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)		
				Last Yr.	Ave. C.	
HOOD, MILE CREEKS, LOWER		DESCHUTES	WATERSHEDS			
Brooks Meadows	3/30	7	2.7	5.2	10.2	
Clear Lake	3/30	0	0.0	4.4	8.9	
Clear Lake (Experimental)	3/30	0	0.0	7.9	15.2	
Greenpoint	4/1	18	7.8	3.8	16.1	
Greenpoint Pillow*	4/2	--	9.7	6.5	----	
Knebal Springs	3/30	--	2.0 ^a	3.6	6.3	
Mt. Hood Test Site	3/30	106	48.7	37.3	65.0	
Mud aidge Pillow	3/31	25	10.9	10.9	----	
Red Hill	3/31	39	16.4	19.3	41.6	
Red Hill Pillow*	3/31	--	18.0	20.2	----	
Still Creek	3/31	0	0.0	11.7	24.1	
Switchback	3/30	13	6.5	10.2	13.1	
Tilly Jane	4/2	67	29.5	12.2	42.1	
Ulrich Ranch Junction	3/30	--	0.0 ^a	1.3	3.0	
Umbrella Falls	4/1	102	38.4	34.4	70.8	
WILLAMETTE WATERSHEDS						
Cascade Summit	3/30	28	11.3	13.0	28.8	
Champion	3/28	28	11.7	19.9	29.2	
Clackamas Lake	3/31	0	0.0	5.8	11.7	
Clear Lake	3/30	0	0.0	4.4	8.9	
Clear Lake (Experimental)	3/30	0	0.0	7.9	15.2	
Dead Horse Grade	3/30	0	0.0	12.2	17.3	
Detroit (Town)	3/30	0	0.0	0.0	0.0	
Detroit Dam	3/30	0	0.0	0.0	0.0	
Golden Curry Creek	3/28	0	0.0	0.7	3.4	
Hogg Pass	3/30	43	18.4	18.8	41.1	
Hogg Pass Pillow*	3/30	--	22.4	----	----	
Lake Harriet		No	Rpt.	----	0.0	
Laurel Mountain	3/31	0	0.0	8.2	----	
Layng Creek	3/28	0	0.0	0.0	0.0	
Lookout Point Dam	3/30	0	0.0	0.0	0.0	
Lost Creek Ranch	3/30	0	0.0	0.0	2.2	
Lund Park	3/28	0	0.0	0.0	0.0	
Marion Forks	3/30	0	0.0	6.2	11.7	
Marion Forks Pillow	3/30	0	0.0	----	----	
Marys Peak	3/30	0	0.0	13.5	12.4	
McCredie Springs	3/30	0	0.0	0.0	0.0	
McKenzie	3/30	41	18.0	25.8	43.5	
McKenzie Bridge	3/30	0	0.0	0.0	0.0	
Mill City	3/30	0	0.0	0.0	0.0	
Mt. Hood Test Site	3/30	106	48.7	37.3	65.0	
Oakridge	3/30	0	0.0	0.0	0.0	
Peavine Ridge Pillow**	3/29	--	0.0	8.5	16.3	
Railroad Overpass	3/30	0	0.0	0.0	0.4	
Saddle Mountain Pillow**		No	Rpt.	10.3	----	
Salt Creek Falls	3/30	0	0.0	7.9	15.4	
Santiam Junction	3/30	0	0.0	10.7	21.6	
Santiam Jct. Pillow	3/30	0	0.0	----	----	
Seine Creek Pillow**	3/27	--	0.2	----	----	
Still Creek	3/31	0	0.0	11.7	24.1	
Summit Lake Pillow*	3/28	--	23.8	----	----	
Summit Lake Pillow**		No	Rpt.	11.0	----	
Timothy Lake	3/23	11	2.3	6.6	15.7	
Valsetz Summit	3/31	0	0.0	0.0	----	
Vida	3/30	0	0.0	0.0	0.0	
Waldo Lake	3/29	39	14.3	12.5	31.0	
Weaver Creek	3/28	0	0.0	0.1	0.2	
White Branch Slide	3/30	0	0.0	7.5	6.1	
Whitewater Bridge	3/30	0	0.0	0.1	2.0	

BASIC DATA SUPPLEMENT 1

APRIL 1, 1978

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave C

ROGUE, UMPQUA WATERSHEDS					
Althouse	3/29	0	0.0	7.5	7.5
Annie Spring	3/30	89	37.8	13.1	45.9
Beaver Dam Creek	3/31	0	0.0	10.3	11.4
Big Red Mountain	3/30	62	28.0	10.7	30.3
Billie Creek Divide	3/30	22	9.6	10.8	20.7
Billie Creek Div. Pillow*	3/30	--	12.3	10.2	----
Caliban	3/29	89	37.7	11.0	32.8
Caliban (Alternate)	3/29	76	32.6	10.0	----
Champion	3/28	28	11.7	19.9	29.2
Cold Springs Camp	3/28	66	27.0	15.3	----
Cold Spgs. Camp Pillow*	3/28	--	16.8	----	----
Deadwood Junction	3/31	0	0.0	7.8	7.4
Diamond-Crater Summit	3/27	58	23.9	10.7	31.4
Diamond Lake	3/27	27	11.2	6.8	21.2
Fish Lake	3/30	T	0.1	9.0	11.4
Fourmile Lake	3/30	38	16.8	15.7	25.1
Fourmile Lake Pillow*	3/30	51	22.0	----	----
Grayback Peak	3/29	39	17.0	10.8	26.2
Howard Prairie Reservoir	3/31	0	0.0	5.1	6.7
Hyatt Prairie	3/31	0	0.0	5.8	6.3
King Mountain #1	3/27	0	0.0	6.3	8.4
King Mountain #2	3/27	0	0.0	5.2	6.4
King Mountain #3	3/27	0	0.0	0.3	0.3
King Mountain #4	3/27	0	0.0	0.0	0.0
King Mountain #5	3/27	0	0.0	0.0	0.0
King Mountain #6	3/27	0	0.0	0.0	0.0
Little Red Mountain	3/28	44	21.0	11.1	24.5
Mt. Ashland Switchback	3/29	85	34.7	10.3	33.2
Mule Creek	3/27	0	0.0	8.5	----
North Umpqua	3/30	0	0.0	5.5	12.2
Page Mountain	3/29	0	0.0	3.6	3.6
Park Headquarters	3/30	111	48.4	17.6	60.3
Red Butte #1	3/27	0	0.0	11.2	15.0
Red Butte #2	3/27	0	0.0	8.0	9.3
Red Butte #3	3/27	0	0.0	2.3	7.5
Red Butte #4	3/27	0	0.0	0.1	3.4
Red Butte #5	3/27	0	0.0	0.0	0.0
Red Butte #6	3/27	0	0.0	0.0	0.0
Seven Mile	3/29	64	25.6	15.4	----
Seven Mile Pillow	3/29	58	24.0	13.1	----
Silver Burn	3/31	0	0.0	5.8	10.9
Siskiyou Summit	3/30	0	0.0	2.4	3.4
Ski Bowl Road	3/29	67	27.6	10.6	27.6
South Fork Canal	3/31	0	0.0	0.0	0.7
Trap Creek	3/30	0	0.0	5.3	9.0

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave C

KLAMATH WATERSHEDS					
Annie Spring	3/30	89	37.8	13.1	45.9
Billie Creek Divide	3/30	22	9.6	10.8	20.7
Billie Creek Div. Pillow*	3/30	--	12.3	10.2	----
Chemult (Alternate)	3/28	8	3.1	0.6	29.2
Chiloquin (PP&L)	3/31	0	0.0	----	0.1
Cold Springs Camp	3/28	66	27.0	15.3	----
Cold Springs Camp Pillow*	3/28	--	16.8	----	----
Crazyman Flat***	3/27	18	6.8	1.6	9.0
Crowder Flat (Calif.)	3/27	0	0.0	0.0	1.5
Crystal (PP&L)		No	Rpt.	----	5.3
Diamond-Crater Summit	3/27	58	23.9	10.7	31.4
Dog Hollow***	3/27	0	0.0	0.0	0.5
Finley Corrals***	3/27	27	10.5	3.2	14.7
Fort Klamath (PP&L)		No	Rpt.	----	1.2
Fourmile Lake	3/30	38	16.8	15.7 ^a	25.1
Fourmile Lake Pillow*	3/30	51	22.0	----	----
Gerber	3/31	0	0.0	0.0	0.6
Harriman (PP&L)		No	Rpt.	0.1	1.8
Howard Prairie	3/31	0	0.0	5.1	6.7
Hyatt Prairie Reservoir	3/31	0	0.0	5.8	6.3
Kirk (PP&L)		No	Rpt.	----	2.6
Park Headquarters	3/30	111	48.4	17.6	66.3
Quart Mountain	3/29	0	0.0	0.0	4.5
Seven Mile	3/29	64	25.6	15.4	----
Seven Mile Pillow	3/29	58	24.0	13.1	----
State Line (Calif.)	3/27	0	0.0	2.2	7.1
Strawberry	3/25	9	3.1	1.2	6.2
Strawberry***		No	Rpt.	----	5.7
Summer Rim	3/30	30	11.2	4.4	17.0
Summer Rim***	3/27	36	13.0	3.2	17.3
Summer Rim Pillow	3/30	39	14.7	4.9	----
Sycan Flat***	3/27	3	1.0	0.0	4.7
Taylor Butte	3/31	1	0.5	0.1	3.2
Taylor Butte Pillow	3/31	0	0.0	0.0	----

LAKE COUNTY, GOOSE LAKE WATERSHEDS					
Adin Mountain (Calif.)	3/24	23	8.2	5.1	12.3
Bald Mountain (Nev.)	3/27	0	0.0	0.3	2.5
Bear Flat Meadow***	3/27	24	9.1	2.4	10.9
Camas Creek #1	3/30	8	2.9	1.2	9.1
Camas Creek #2	3/30	15	5.7	----	----
Cedar Pass (Calif.)	3/23	34	13.2	8.4	15.6
Colvin Creek***	3/27	0	0.0	0.3	4.9
Cox Flat***	3/27	0	0.0	0.0	6.1
Crowder Flat (Calif.)	3/27	0	0.0	0.0	1.5
Dismal Swamp (Calif.)	3/27	51	22.4	7.6	18.5
Finley Corrals***	3/27	27	10.5	3.2	14.7
Hart Mountain***	3/27	0	0.0	0.5	1.1
Little Bally Mtn. (Nev.)***	3/27	3	1.2	0.3	1.6
Mt. Bidwell (Calif.)	3/28	59	25.8	6.9	----
North Star (Calif.)	3/28	33	14.7	7.2	----
Patton Meadows***	3/27	36	13.0	4.0	17.5
Quartz Mountain	3/29	0	0.0	0.0	4.5
Rogger Meadows***	3/27	27	10.3	3.8	----
Sherman Valley***	3/27	23	8.7	5.4	12.1
Silver Creek	3/27	0	0.0	0.1	1.0
State Line (Calif.)	3/27	0	0.0	2.2	7.1
Strawberry	3/25	9	3.1	1.2	6.2
Strawberry***		No	Rpt.	----	5.7
Summer Rim	3/30	30	11.2	4.4	17.0
Summer Rim***	3/27	36	13.0	3.2	17.3
Summer Rim Pillow	3/30	39	14.7	4.9	----
Sycan Flat***	3/27	3	1.0	0.0	4.7

BASIC DATA SUPPLEMENT 1

APRIL 1, 1978

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. ^c

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. ^c

HARNEY BASIN WATERSHEDS

Blue Mountain Springs	3/30	24	10.5	6.0	14.1
Blue Mtn. Springs Pillow	3/30	20	9.0	5.1	----
Buck Pasture***	3/27	0	0.0	0.0	2.1
Buckskin Lake***		No	Rpt.	----	0.3
Call Meadows***	3/27	3	1.4	0.1	4.0
Delintment Lake	3/30	8	3.3	2.5	6.6
Denio Creek***	3/27	0	0.0	0.0	0.5
Disaster Peak (Nev.)	3/27	27	12.6	2.0	13.4
Emigrant Butte	3/30	0	0.0	0.1	3.9
Fish Creek	3/31	66	28.5	12.1	21.1
Fish Creek***	3/27	58	24.9	----	19.1
Fish Creek Pillow*		No	Rpt.	11.1	----
Hart Mountain***	3/27	0	0.0	0.5	1.5
Idlewild Camp Alternate	3/29	0	0.0	0.1	----
Izee Summit	3/30	5	2.4	4.3	7.0
Lake Creek R.S.	3/30	12	5.5	3.0	9.1
Lake Creek R.S. Pillow*	3/30	13	6.0	----	----
Oregon Canyon***	3/27	10	4.7	0.1	4.8
Rock Spring	3/30	10	4.7	1.1	4.9
Silvies	3/31	27	12.7	8.4	9.9
Silvies***	3/27	24	11.3	----	7.7
Silvies Pillow*		No	Rpt.	----	----
Snow Mountain	3/30	26	12.2	5.2	11.9
Snow Mountain Pillow*		No	Rpt.	----	----
Snow Mountain Pillow**		No	Rpt.	2.6	----
Starr Ridge	3/30	0	0.0	2.2	4.9
Stinking Water	3/31	0	0.0	0.0	1.9
Trout Creek***	3/27	36	16.6	2.4	6.4
"V" Lake	3/27	12	5.6	2.9	4.9

LOWER COLUMBIA WATERSHEDS

Blazed Alder**		No	Rpt.	----	----
Mt. Hood Test Site	3/30	106	48.7	37.3	65.0
Mud Ridge Pillow	3/31	25	10.9	10.9	----
North Fork Reservoir**	3/31	--	0.0	24.0	----
Still Creek	3/31	0	0.0	11.7	24.1

T Trace
 * Manometer reading.
 ** Telemetry reading.
 *** Aerial.

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

APRIL 1, 1978

SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average ^c
OWYHEE, MALHEUR WATERSHEDS							
Bear Creek (Nev.)	7800	72	16.8	3/30	No Rpt.	11.2	11.5
Big Bend (Nev.)	6700	48	16.7		No Rpt.	13.1	15.0
Blue Mountain Spring	5900	42	16.9		12.7	5.9	11.5
Rodeo Flat (Nev.)	6800	42	11.0		No Rpt.	4.3	8.4
Taylor Canyon (Nev.)	6200	48	15.1		No Rpt.	10.6	12.9
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS							
Blue Mountain Summit	5100	36	16.8	3/27	14.8	----	12.1
Dooley Mountain	5430	36	9.2	3/28	7.5	2.7	4.9
Emigrant Springs	3925	48	22.3	3/28	19.8	----	2.0
Ladd Summit	3730	48	18.9	3/27	13.1	10.6	11.8
Moss Springs	5850	36	25.8	3/27	14.7	13.9	15.0
Tollgate	5070	48	23.6	3/28	17.6	11.2	18.9
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	3/27	14.8	11.4	13.4
Emigrant Springs	3925	48	22.3	3/28	19.8	----	21.0
Tollgate	5070	48	23.6	3/28	17.6	11.2	18.9
UPPER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	3/27	14.8	11.4	13.4
Blue Mountain Spring	5900	42	16.9	3/30	12.7	5.9	11.5
Blue Mountain Summit	5100	36	16.8	3/27	14.8	----	12.1
Derr	5670	24	9.0	3/28	8.7	5.9	8.5
Marks Creek	4540	36	14.1	3/31	11.3	10.0	13.0
Snow Mountain	6300	48	16.7	3/30	15.8	12.3	14.3
Starr Ridge	5150	36	10.6	3/30	10.6	8.0	10.1
UPPER DESCHUTES, CROOKED WATERSHEDS							
Derr	5670	24	9.0	3/28	8.7	5.9	8.5
Marks Creek	4540	36	14.1	3/31	11.3	10.0	13.0
Snow Mountain	6300	48	16.7	3/30	15.8	12.3	14.3
KLAMATH WATERSHEDS							
Quartz Mountain	5230	48	15.3	3/29	10.0	6.3	9.1
LAKE COUNTY, GOOSE LAKE WATERSHEDS							
Camas Creek	5720	42	14.5	3/30	13.0	9.9	12.8
Quartz Mountain	5230	48	15.3	3/29	10.0	6.3	9.1
HARNEY BASIN WATERSHEDS							
Blue Mountain Spring	5900	42	16.9	3/30	12.7	5.9	11.5
Silvies	6900	48	16.4	3/31	14.6	----	13.7
Snow Mountain	6300	48	16.7	3/30	15.8	12.3	14.3
Starr Ridge	5150	36	10.6	3/30	10.6	8.0	10.1
Willow-Bald	5000	24	6.6	3/31	6.6	5.3	5.9
(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.							

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

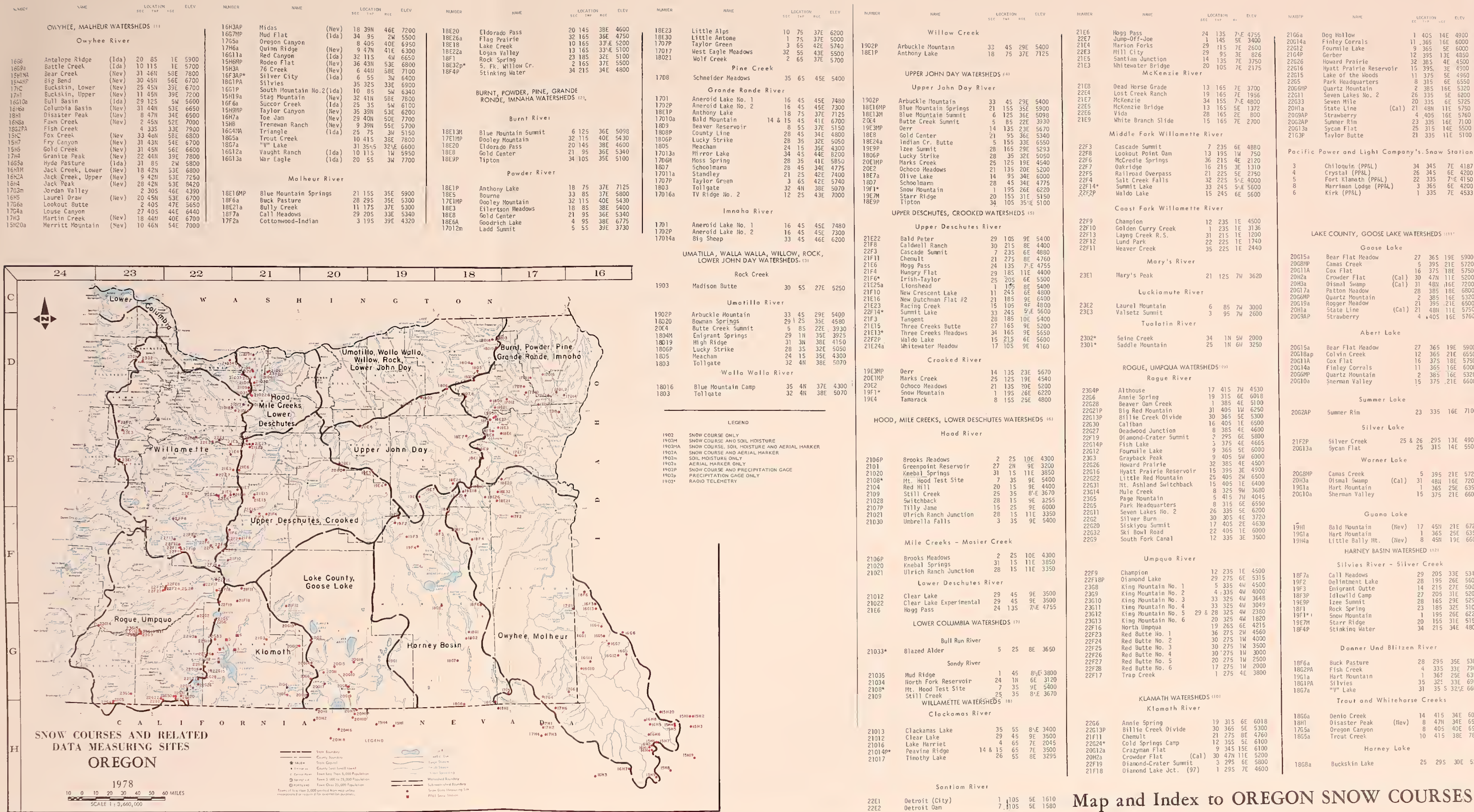
BASIC DATA SUPPLEMENT 3

APRIL 1, 1978

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Arbuckle Mountain (Morrow County)	5400	From 2/28 To 3/28	2.50"	5.00"	----
Blue Mt. Springs (Grant County)	5900	From 2/28 To 3/30	3.25"	4.00"	----
Brooks Meadow (Hood River County)	4520	From 2/24 To 3/30	0.25"	17.60"	----
County Line (Umatilla County--Starkey Hdqs.)	4800	From 2/27 3/29	1.40"	----	----
Derr (Wheeler County)	5800	From 2/23 To 3/28	2.90"	----	----
Eilertson Meadow (Baker County)	5400	From 3/28 To 3/27	3.12"	----	----
Lucky Strike (Umatilla County)	5050	From 2/28 To 3/28	3.75"	6.00"	----
Mt. Hood Test Site (Clackamas County)	5555	From 2/27 To 3/30	3.79"	----	----
Quartz Mt. Summit (Lake County)	6300	From 2/24 To 3/29	2.55"	2.35"	----
Schneider Meadows (Baker County)	5400	From 2/27 To 3/27	5.76"	----	----
Silver Creek (Lake County)	4900	From 2/23 To 3/27	1.67"	1.04"	----
Taylor Butte (Klamath County)	5040	From 2/27 To 3/31	3.12"	0.96"	----
Taylor Green (Union County)	5800	From 2/27 To 3/27	4.56"	24.50"	----
Tipton (Baker County)	5100	From 2/28 To 3/27	2.76"	4.00"	----

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average (d) Corrected to natural flow. (e) Not scheduled.



Map and Index to OREGON SNOW COURSES

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The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon Department Of Water Resources
- Soil and Water Conservation Districts of Oregon

COUNTY

- Douglas County Water Resources Survey

FEDERAL

- Department of Agriculture
 - Cooperative Extension Service
 - Forest Service
 - Soil Conservation Service
- Department of Commerce
 - NOAA, National Weather Service
- Department of the Interior
 - Bonneville Power Administration
 - Bureau of Land Management
 - Bureau of Reclamation
 - Fish and Wildlife Service
 - Geological Survey
- Department of National Defense
 - Corps of Army Engineers

PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES

- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale - Oregon Irrigation District
- Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

- The Crag Rats, Hood River, Oregon

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*"The Conservation of Water begins
with the Snow Survey"*

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